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The Value of Buddhist Responses to Issues of
Overpopulation, Overconsumption, and Environmental Degradation

by

James Harold Hitchcock III

Under the Direction of Jonathan Herman

Abstract

As the global population continues to increase at an alarming rate, the world, as a whole, now faces the issue of overpopulation. If the world's natural resource consumption and environmental pollution/destruction continue at their current pace, then the earth will eventually no longer be able to sustain all of its inhabitants. Social change is the only way to prevent this. The world's religious traditions possess particular motivational qualities with respect to people's worldviews and behaviors. All of the world's religious traditions are responding, in some way, to overpopulation. Traditions in isolation, however, do not address the complexities of the current ecological crisis. Overpopulation requires a broader approach that unites the respective responses. This thesis examines the value of responses to overpopulation from certain Buddhist intellectuals in the contemporary religion and ecology discourse concerning overpopulation while also underscoring instances of resonance between those responses and ones from modern Christian thinkers.

INDEX WORDS: Buddhism, Overpopulation, Overconsumption, Environmental Degradation, Religion, Ecology

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Overpopulation, Overconsumption, and Environmental Degradation

by

James Harold Hitchcock III

A Thesis Submitted in Partial Fulfillment of the Requirements for the Degree of

Master of Arts

in the College of Arts and Sciences

Georgia State University

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1. INTRODUCTION

Human beings are continually becoming more aware of themselves as well as the world around them. As human understandings of the world evolve, human beings are becoming concurrently conscious of such things as, but not limited to, the complexity of our world, humankind's place in that world, and the rapid destruction of the environment occurring throughout that world. This particular set of knowledge highlights, almost ironically, part of the history of human existence. As Mary Evelyn Tucker, co-coordinator of the Harvard University Religions of the World and Ecology Conference Series, observes, "Just as we become conscious that the Earth took more than four billion years to bring forth this abundance of life, it is dawning on us how quickly we are foreshortening its future flourishing."¹ Today, we are at countless intellectual crossroads. One such intersection is between our understanding of our own place in this world and our understanding of our own impact on this world.

The combination of the awareness of humanity's cosmological context in conjunction with knowledge of today's environmental problems is central to current ecological discourses. In particular, the issue of overpopulation is one area in which human beings are beginning to explore such awareness. The rapid human population growth of the last century and its subsequent effects on the environment have led many scientists and scholars to conclude that the earth is overpopulated.² The issue of overpopulation has evoked responses from a myriad of thinkers from different backgrounds, affiliations, and communities from around the globe. Some of the most

¹ Mary Evelyn Tucker's *Worldly Wonder: Religions Enter Their Ecological Phase* p. 3.

² Refer to the 2000 Earth Charter-www.earthcharter.org-& the 1992 World Scientists' Warnings to Humanity-www.ucsusa.org.

significant and helpful of these responses come from within the world's major religious traditions.

The ecological discourse among the people of the world's major religious traditions is a rich one. As former Director of the Harvard University Center for the Study of World Religions Lawrence E. Sullivan observes, "Religion distinguishes the human species from all others, just as human presence on earth distinguishes the ecology of our planet from other places in the known universe. Religious life and the earth's ecology are inextricably linked, organically related. Human belief and practice mark the earth. One can hardly think of a natural system that has not been considerably altered, for better or worse, by human culture."³ With this in mind, it is also a fascinating moment in history both for humankind and the religions of the world with respect to ecology.

Thomas Berry, former Director of the Riverdale Center for Religious Research, describes the present historical period as the "terminal Cenozoic period," commenting, "it seems that the human could come into being only at a period when the planet was at such a gorgeous moment in its expression of itself."⁴ At the same time, because today many people within the world's religions have currently turned their attentions to matters concerning the environment, it has prompted religious scholars, such as Tucker, Sullivan, John Grim, Duncan Ryuken Williams, and others to note that many of the world's major religious traditions are entering what may be classified as an "ecological phase" in which the people of these traditions are now developing ethics concerning the environment.⁵

³ Lawrence E. Sullivan's introduction to *Buddhism and Ecology : The Interconnection of Dharma and Deeds* p. xi.

⁴ For a better explanation see Thomas Berry's *The Universe Story: Its Religious Significance*.

⁵ Mary Evelyn Tucker describes this in *Worldly Wonder: Religions Enter Their Ecological Phase* p 9.

Recognition of the magnitude and complexity of the current global environmental condition in religious terms helps in identifying resources for potentially positive global transformations within the budding discourse on religion and ecology. Indeed, the world's current environmental state calls for the religions of the world to respond, and thus enter their ecological phase. This thesis speaks to an audience established by the growing interest in that burgeoning discourse and the numerous academic conferences, series, and volumes on the subject, like the Harvard University Religions of the World and Ecology Conference Series.⁶ This thesis aims to join the modern discourse on religions and ecology by examining instances of environmental concerns from within Buddhism and Christianity, highlighting resonance between particular responses. Specifically, this work chiefly focuses on certain contemporary Buddhist responses to overpopulation, overconsumption, and environmental degradation, while underscoring significant resonance between those Buddhist responses and similar modern liberal Christian ones.

This thesis examines the writings of ecumenical Buddhist spiritual leader Thich Nhat Hanh, Buddhist scholar-advocate Rita Gross, and Buddhologist and scientific scholar Joanna Macy--all of whom have written extensively on both Buddhism and environmental/population issues--as well as those of contemporary Christian theologians Sallie McFague and Rosemary Radford Ruether. These Buddhist perspectives convey the complexity of the Buddhist tradition, offer insights into the problem of overpopulation, and focus on both the notions of the interrelation of all things and causality. These three Buddhist intellectuals stand out from among the countless thinkers

⁶ This is not to say that the Harvard University Religions of the World and Ecology Conference Series is the only example of academic interest in the religions and ecology discourse, rather that it is arguably the best representation of the growing interest in the subject matter.

acting within the tradition in response to environmental issues because each is part of the landscape of what in recent years has come to be known as American socially engaged Buddhism--an umbrella term referring to the application of Buddhist values to social issues in U.S.⁷ This stream of Buddhism has found a particular niche in the United States. The emergence of socially engaged Buddhism in America is loosely affiliated with both the Buddhist Peace Fellowship, with which Macy and Gross are associated, and the cluster of organizations and groups linked to Nhat Hanh.⁸ Each of these figures are noteworthy because of their prominence in the American socially engaged Buddhism setting, as well as their respective responses to contemporary ecological issues. Furthermore, highlighting such thinking in conjunction with similar thinking from Christianity promotes the potential for developing more inclusive and culturally comprehensive approaches to current global problems. Because the current ecological predicament of overpopulation has prompted responses from those within the world's religious traditions, in this thesis I will explore some of these responses and underscore resonances among them in order to expand the general scholarship on the subject.

Indeed, today's environmental crisis calls the world's religions to respond by finding their voice within the global discourse on overpopulation. This thesis is one example of the foundational work necessary for the greater scholarly analysis that drives both inter-religious and inter-disciplinary dialogues. Once natural alliances among disciplines, such as Buddhism, Christianity, science, and others, are pointed out, the stage is set for the emergence of multidisciplinary dialogues which offer both broader and more inclusive responses to global problems.

⁷ Refer to the "Socially Engaged Buddhism" chapter of Richard Seager's *Buddhism in America* p. 201-215.

⁸ Ibid. p. 201-215.

Responses to environmental concerns from the world's religions can and do shape individuals' attitudes toward the environment, toward human fertility, and toward the division of the Earth and the sharing of its resources.⁹ As Marquette University Professor of Moral Theology and Ethics Daniel Maguire warns, "If current (environmental) trends continue, we will not....And that is qualitatively and epochally true. If religion does not speak to [this], it is an obsolete distraction."¹⁰ In response to modern problems, new theologies have emerged from within the world's religious traditions. In doing so, many scholars are discovering resources for more constructive responses to ecological concerns. The emergence of the world's religions into their ecological phase in conjunction with the development of these more constructive responses, however, also presents considerable challenges to the religions of the world. One specific challenge involves acknowledging challenges to the world's religions in the ecological discourse.¹¹ Here, three such challenges suffice.

The first shortcoming is that unquestionably there are negative aspects of the world's religions. Historically, humans have acted through religions in both benevolent and immoderate ways. Though not the only cause of human conflict, religious dimensions are present in much of history's human conflicts. Specifically, there were numerous religious wars in Middle Age Western Europe, and presently there are religious conflicts in the Balkans, Southern Asia, and the Middle East. Other powerful examples of the detrimental side of religious determination include the Holocaust and the

⁹ Mary Evelyn Tucker's *Worldly Wonder: Religions Enter Their Ecological Phase* p. 11.

¹⁰ Daniel Maguire's *The Moral Core of Judaism and Christianity: Reclaiming the Revolution*.

¹¹ For a broader discussion of this see Mary Evelyn Tucker's *Worldly Wonder: Religions Enter Their Ecological Phase* p. 18-19.

September 11th terrorist attacks.¹² So, it must be admitted that though people are acting through the world's traditions, those actions do not always foster constructive responses to the world's problems.

Another limitation of religious traditions is the fact that identifying religious ideas/theory does not translate necessarily into human action/practice. This is arguably the greatest challenge to the potency of religious perspectives in the ecological discourse. Indeed, there is a disconnect between traditional religious teachings and modern social issues. Traditional religious teachings are from a different historical context and do not specifically address certain modern problems like overpopulation. Moreover, religious responses also are sometimes idealized as being the ultimate answers to the world's environmental problems.¹³ For example, many have claimed that Eastern religious traditions, such as Buddhism and Daoism, are more ecologically-minded than other religious traditions. While certainly there are deep ecological aspects of these traditions, there are also other aspects of these same traditions that do not support claims of ecological purity. As Tucker explains, "among the religious traditions, the record is mixed with regard to their ecologically friendly resources....Moreover, ecologically relevant texts do not necessarily result in ecologically appropriate practices."¹⁴ Thus, it is important to note that religious answers do not necessarily translate into human action.

One more limitation is that religious traditions are not the only institutions contributing to the effort of solving the world's present environmental problems. Religions often can be estranged from other disciplines that are also involved in environmental and social progression. Religious thought and scientific thought are

¹² Mary Evelyn Tucker's *Worldly Wonder: Religions Enter Their Ecological Phase* p. 19-26.

¹³ Ibid p. 20.

¹⁴ Ibid p. 22.

occasionally in opposition, both in theory and method.¹⁵ For example, religious cosmologies often are in direct contrast to scientific explanations of the beginnings of the world. These sorts of disjunctions, however, do not benefit the modern ecological discourse. In isolation, no single discipline will solve the world's current environmental problems. According to Mary Evelyn Tucker, "While there is growing evidence of the vitality of the emerging dialogue of religion and ecology, and while there are remarkable examples around the world of grassroots environmental action inspired by religion, it is clear that environmental changes will come from many different disciplines, motivations, and inspirations."¹⁶

Despite these historical and cultural limitations, there are certain common religious attitudes, values, and practices that can be identified for more comprehensive ecological perspectives. The contributions of religious ideas for enlightening and stimulating the ecological discourse are evident in the development of ecological theology and environmental ethics.¹⁷ Those contributions, however, only take the global ecological discourse so far. This suggests it may be helpful first to examine some scientific perspectives on overpopulation, overconsumption, and environmental degradation in order to understand better the significance of religious responses to the same problems.

2. THE PROBLEM OF OVERPOPULATION

¹⁵ Mary Evelyn Tucker's *Worldly Wonder: Religions Enter Their Ecological Phase* p. 24.

¹⁶ Ibid p. 25-26.

¹⁷ Ibid p. 26.

A reasonable starting place for this discussion is to establish a working definition of “overpopulation.” A standard explanation is that overpopulation occurs when an area’s population is too large to be sustained by that area’s available natural resources.¹⁸ This definition is sufficient until one considers the range of factors contributing to the complexity of the overpopulation issue. Here, it is beneficial also to include a definition from scientists in the field of population studies: overpopulation occurs when an area’s population cannot be maintained without harming the environment’s capacity to support the population and without the rapid depletion of both renewable and nonrenewable resources.¹⁹ Together, these two definitions illustrate that there are multiple aspects characterizing overpopulation, including human population, the amount of natural resources, and the environment’s ability to sustain a population.

The world’s human population is currently approaching seven billion.²⁰ It has grown from one billion in 1820 to two billion in 1930, three billion in 1960, four billion in 1974, five billion in 1988, and six billion in 2000.²¹ Human population grew by four billion in the last century alone and is growing by about 76 million annually.²² It is estimated that the world’s population will top eight billion by 2030 and nine billion by 2050.²³ Such a population growth rate greatly impacts the environment.

Of the world’s total area (approximately 316 million square miles), only 92.5 million square miles of that is land.²⁴ Only thirteen percent of the world’s land is

¹⁸ This definition is a summary of numerous definitions of “overpopulation.”

¹⁹ Explained in Paul & Anne Ehrlich’s discussion of this in their article “The Population Explosion.”

²⁰ Refer to the World Factbook Website. www.worldfactbook.org.

²¹ Ibid.

²² Ibid.

²³ Ibid.

²⁴ Ibid.

cultivated or is fit to be cultivated.²⁵ Global population densities, determined by the addition of human population to the environment, are rapidly increasing because of expanding deserts and increasing sea levels, both of which can be directly related to the rapid population growth of the last century.²⁶ The growing deserts are largely the consequence of overstocking grasslands and over-plowing farmland to meet the needs of an ever-greater population, while climbing sea levels are partly the result of rising concentrations of carbon dioxide destabilizing the Earth's climate and the subsequent temperature increases resulting from the burning of fossil fuels.²⁷ In fact, such trends are evident across the globe.²⁸

China, for instance, is losing arable and farmable land at a hastened pace. In the mid to late 20th century, China was losing an average of 600 square miles to desert annually. By the start of the 21st century, that number had increased to an average of 1,400 square miles of desert yearly. In fact, Chinese scientists reported that in just the last fifty years, approximately 24,000 villages in northern and western China were abandoned because of drifting sand.²⁹ In addition to the rapid use of arable land, the present rate of growth in human population is also affecting sea levels.

In the 20th century average sea levels rose by approximately six inches, and it is estimated that average sea levels in the 21st century could rise as much as thirty-five

²⁵ Refer to statistics from the World Factbook Website. www.worldfactbook.org.

²⁶ See George Morris's *Overpopulation: Everyone's Baby*.

²⁷ See the Overpopulation.org website. www.overpopulation.org.

²⁸ For example, populations in parts of Morocco, Tunisia, and Algeria have been forced to move northward toward the Mediterranean Sea because of the expansion of the Sahara Desert, Nigeria currently loses an average of about 1,355 square miles to desertification annually, and Kazakhstan has abandoned almost half of its cropland since 1980. The expansion of deserts is a problem that is evident all over the world. Iran, Senegal, Mauritania, Sudan, Ethiopia, Somalia, Mexico, and United States are other nations that face similar problems.

²⁹ Reference the Overpopulation.org website. www.overpopulation.org

inches.³⁰ The 21st century has begun with global record-high temperatures which have accelerated global ice melting, which in turn increases the likelihood of future rises in sea levels.³¹ Even a sea level increase of just thirty-nine inches would flood cities such as London, Shanghai, Washington, D.C., Bangkok, Alexandria, Miami, and Lower Manhattan, as well as the deltas and floodplains of India, Thailand, Viet Nam, Indonesia, China, and southern Louisiana.³²

Overpopulation in the world's richer, industrialized nations appears to drive the current global cycle. Populations of richer nations are hurriedly depleting the supply of resources from their own lands as well as resources from other parts of the world. At the 1992 Earth Summit sponsored by the United Nations, leaders of developing countries of the Southern hemisphere claimed that the problem of overpopulation and its subsequent environmental degradation was not one of overpopulation in the South, but one of excessive overconsumption of Earth's resources by the fewer, richer nations of the Northern hemisphere.³³ A child born in Europe or North America will consume thirty times more of the earth's resources and produce thirty times as much pollution as a child born in a developing country.³⁴ Even more striking, Americans are guilty of consuming the most resources per capita, as well as using the most inefficient technologies.

The U.S. population only accounts for about five percent of the world's population, but that percentage produces almost a quarter of global emissions.³⁵

Presently, the average American uses 11 kilowatts of energy in a single year, which

³⁰ Refer to the Overpopulation.org website.

³¹ Ibid.

³² The Greenland ice sheet, for example, is losing mass at an alarming rate due to its recent accelerated melting. If it were to melt entirely, global sea levels would increase by an average of about 23 feet.

³³ See the Report of the United Nations Conference on Environment and Development.

³⁴ Statistics obtained from the website Overpopulation.org.

³⁵ Ibid.

according to population scientist Dr. Paul Ehrlich, is “twice as much as the average Japanese, more than three times as much as the average Spaniard, and over 100 times as much as an average Bangladeshi.”³⁶

Today’s scientists are developing ways to address the problems caused by overpopulation.³⁷ The directors of the British Antarctic Survey (BAS),³⁸ Chris Rapley and John Guillebaud, argue that addressing the rapidly increasing human population is essential if improvements are to be made on other global problems. Guillebaud states, “Unless we reduce the human population humanely through family planning, nature will do it for us through violence, epidemics or starvation.”³⁹ Rapley points out that the resources required in order to sustain the world’s human population growth place huge strains on the planet’s life-support system, concluding that humankind needs to take measures to reduce its ever-increasing numbers. In a broader scope, Rapley also claims that a global population of nine billion cannot meet its energy needs without “irreversible damage” to the world and “unimaginable difficulties” for the human race.⁴⁰ Guillebaud, Rapley, and the BAS are not the only members of the scientific community expressing ecological apprehensions.

The best articulation of the environmental concern within today’s scientific community is "World Scientists' Warning to Humanity," signed by nearly 2,000 of the

³⁶ Comes from Paul Ehrlich research from “Too Many Rich People: Weighing Relative Burdens on the Planet.”

³⁷ Sustainability is the conservation of energy and resources through technological means as well as through reducing the number of births so that people have enough resources throughout their lives and throughout the lives of future generations.

³⁸ The BAS is one of the world’s leading environmental research centers and is affiliated with the National Environmental Research Council of Great Britain.

³⁹ Refer to the January 07, 2006 issue of The Independent (UK).

⁴⁰ Ibid.

world's leading scientists, including over half of all living Nobel Laureates in science. It reads in part:

Human activities inflict harsh and often irreversible damage on the environment and on critical resources....Fundamental changes are urgent if we are to avoid the collision our present course will bring about....The environment is suffering critical stress....Our massive tampering with the world's interdependent web of life -- coupled with the environmental damage inflicted by deforestation, species loss, and climate change -- could trigger widespread adverse effects, including unpredictable collapses of critical biological systems whose interactions and dynamics we only imperfectly understand....The earth is finite. Its ability to absorb wastes and destructive effluent is finite. Its ability to provide food and energy is finite. Its ability to provide for growing numbers of people is finite. And we are fast approaching many of the earth's limits....Pressures resulting from unrestrained population growth put demands on the natural world that can overwhelm any efforts to achieve a sustainable future. If we are to halt the destruction of our environment, we must accept limits to that growth....No more than one or a few decades remain before the chance to avert the threats we now confront will be lost and the prospects for humanity immeasurably diminished....A great change in our stewardship of the earth and the life on it is required, if vast human misery is to be avoided and our global home on this planet is not to be irretrievably mutilated....We must bring environmentally damaging activities under control....We must stabilize population. This will be possible only if all nations recognize that it requires improved social and economic conditions and the adoption of effective, voluntary family planning...The developed nations are the largest polluters in the world today. They must greatly reduce their overconsumption, if we are to reduce pressures on resources and the global environment....A new ethic is required -- a new attitude towards discharging our responsibility for caring for ourselves and for the earth. We must recognize the earth's limited capacity to provide for us....We need the help of many. We require the help of the world community of scientists -- natural, social, economic, and political...We require the help of the world's religious leaders. We require the help of the world's peoples. We call on all to join us in this task.⁴¹

This summary of the impact of the problem of overpopulation on contemporary society illustrates that it is a crisis that affects everyone. Science as an isolated discipline cannot comprehensively rectify current environmental trends. Multiple disciplines must

⁴¹ Reference Henry Kendall's "World Scientists' Warning to Humanity."

contribute to the resolution of global ecological problems. Answers to the problems caused by overpopulation typically center on rapid population growth, but human impact on the environment depends also on the practices, lifestyles, and behaviors of human beings. The beliefs and practices we affirm in our daily actions can augment the outcome of the cosmic story of which we are a part.⁴² Today, religious wisdoms are as important as scientific facts in addressing global problems such as overpopulation, excessive consumption of the planet's resources, and the pollution of Earth. Religions have motivational qualities that historically have been forces for positive and efficacious personal and social transformation.⁴³ This is where responses from those within the world's major religious traditions play a pivotal role. There is significance in examining responses from within the world's religions to overpopulation, overconsumption, and environmental degradation, as well as in highlighting resonance within those responses. I will begin my discussion of such responses with examples within the Buddhist tradition.

⁴² For a broader discussion of how beliefs and practices determine the human cosmic story see Thomas Berry's *Dream of the Earth* and Thomas Berry and Brian Swimme's *The Universe Story*.

⁴³ For a greater explanation of motivational qualities of religions see Mary Evelyn Tucker's *Worldly Wonder: Religions Enter Their Ecological Phase* p. 20-25.

3. BUDDHISTS' PERSPECTIVES ON OVERPOPULATION: INTERCONNECTEDNESS & CAUSALITY

The situation of religions today is becoming so critical that the environmental crisis may actually turn out to be a positive thing for religion. This is because ecological catastrophe is awakening us not only to the fact that we need a deeper source of values and meaning than market capitalism can provide but also to the realization that contemporary religion is not meeting this need either.⁴⁴

A practical starting place for this section is Buddhologist David Loy's application of Buddhists' perspectives in order to illustrate how other viewpoints from within the same tradition will be applied in this discussion. In "The Religion of the Market," Loy offers Buddhism as an alternative to the "consumerism" that he identifies as the dominant worldview of the "global market economy," which he classifies as a modern world religion.⁴⁵ Certainly, such a classification is debatable and it does depend on how one defines "religion."⁴⁶ However, what is central to our present discussion is how Loy employs Buddhists' responses as deeper sources of values and meaning than market capitalism, which he calls the religion of the market.

Loy offers these responses as alternatives to the worldview of "consumerism" within the global market economy, which, according to him, now dominates the global landscape.⁴⁷ Utilizing parts of Max Weber's sociology of religion and some references to the historical development of capitalism, Loy explains how economics is like theology and how the global market economy's "consumerism" may be considered a modern

⁴⁴ David Loy "The Religion of the Market" in Harold Coward and D. Maguire eds. *Visions of a New Earth*

⁴⁵ Ibid p. 15-28.

⁴⁶ For a greater discussion of the universal category of 'religion' see scholar of comparative religion Wilfred Cantwell Smith's *The Meaning and End of Religion* (1962).

⁴⁷ David Loy's "The Religion of the Market" p. 19.

world religion.⁴⁸ Today, the religion of the market is fueling overpopulation, overconsumption, and environmental degradation.⁴⁹ In this case, the religion of the market is problematic with respect to the population explosion because it constantly seeks to create larger markets to be “developed,” meaning that there is an ever-expanding market.⁵⁰ This parallel becomes all the more significant considering how Loy applies Buddhist responses to overpopulation and overconsumption to the religion of the market.

Loy offers Buddhist perspectives on this issue as a way in which individuals may “unhook” themselves and their respective mindsets from “consumerism” and, ultimately, from the religion of the market.⁵¹ In much the same way, the ideas of Buddhist thinkers also may offer a way in which individuals may “unhook” themselves from established assumptions rooted within particular traditional standpoints. What is at the heart of Loy’s theory is an examination of the ideas and values from Buddhist intellectuals that could actually persuade individuals to produce less progeny and to consume fewer resources.

In this sense, as Loy applies Buddhists’ responses as a way for individuals to “unhook” themselves from consumerism, then, too, other perspectives from Buddhist thinkers may be applied to the current discourse on overpopulation as allies to other responses rather than as singular and isolated antidotes to global concerns. Just as Loy does, this thesis too offers the subsequent discussion of Buddhist intellectuals’ responses to overpopulation, overconsumption, and environmental degradation as alternative sources of significant values and meaning within the modern global ecological discourse.

⁴⁸ David Loy’s “The Religion of the Market” p. 21-22.

⁴⁹ Ibid p. 26-28.

⁵⁰ Henry Keller’s discussion in “World Scientist’ Warning to Humanity.”

⁵¹ David Loy’s “The Religion of the Market” p. 22.

Historically, those within Buddhism have had engagement with social issues across the globe.⁵² The 2007 Burmese antigovernment protests became one of the most recent examples of Buddhist social engagement when Buddhist monks gathered in protest at the Shwedagon Pagoda in Rangoon. In the United States, Buddhist engagement with social issues has flourished into what has become known as American socially engaged Buddhism. A simple definition of the term “socially engaged Buddhism,” first coined by Thich Nhat Hanh, is that it is a “movement to apply Buddhist principles to issues in contemporary society.”⁵³ Still, it is “usually used to refer to the application of the dharma to social issues in a more comprehensive fashion than religious charity or philanthropy, one that seeks to redirect the personal quest for transcendence to the collective transformation of society.”⁵⁴ Together, these respective definitions illustrate that “socially engaged Buddhism” includes both public and private acts, all aimed at responding to ethical and social issues in the modern world.

Admittedly, in narrowing the field of perspectives on this subject, I cannot reflect the full depth of responses throughout this tradition. These three particular figures, though, are an interesting combination of environmentally concerned responses occurring under the phenomena of American socially engaged Buddhism. Vietnamese Zen Buddhist monk Thich Nhat Hanh’s perspectives provide a traditional understanding of Buddhist teachings and practices and have mystical components that are cosmopolitan in scope. American Buddhologist Joanna Macy offers a distinctly American viewpoint and

⁵² There are countless examples of engagement with social issues from those within the Buddhist tradition. A few examples include the historical Buddha’s rejection of the caste system and the social and religious hierarchies present in Asia during the third century B.C.E., various Asian emperors’ uses of Buddhist principles during their respective reigns, any acts of charity or philanthropy, the running of hospitals and hospices, the maintaining of schools and public education, work for restoring peace in war-torn countries, it also includes the cultivation of peace and the cessation of suffering in everyday life.

⁵³ Richard Seager’s *Buddhism in America* p. 201-203.

⁵⁴ *Ibid.* p. 201.

a connection and correlation to the scientific community. American Buddhist Rita Gross's viewpoint presents another distinctly American perspective from someone who is both a scholar and a practitioner of Buddhism. Moreover, discussing perspectives from Nhat Hanh, Macy, and Gross in conjunction highlights values and practices alive within Buddhism directly relating to this issue and highly significant for dialogue with other traditions, such as interdependence and causality. Furthermore, each individual reflects both a deep intellectual understanding of the Buddhist tradition and a deep-rooted application of that knowledge into his or her daily life. A reasonable starting place for this discussion is found in the works of Nhat Hanh, whom American Buddhism scholar Richard Seager calls "the single most important Asian source of inspiration in this country."⁵⁵

Nhat Hanh's contributions to contemporary Buddhism are profound. He has created and is involved in countless organizations and movements that revolve around social engagement and the establishment of world peace, some of which include the Tiep Hien Order or Order of Interbeing, Parallax Press, the Community of Mindful Living, and Plum Village in France.⁵⁶ A Nobel Prize nominee, Nhat Hanh writes extensively on Buddhist teachings, practices, and values. Furthermore, his style of writing and his way of interpreting Buddhist teachings have overwhelming popular appeal. This has been especially true in the modern West because of how he unites Buddhist teachings, values, and practices with contemporary Western sensibilities and psychology.⁵⁷ Furthermore, Nhat Hanh's ideas undergird a majority of the works of subsequent thinkers in this

⁵⁵ Broader discussion in Richard Seager's *Buddhism in America* p. 203.

⁵⁶ For a more extensive list of Thich Nhat Hahn's social involvements and organizations see the Parallax Press website.

⁵⁷ Refer to the Parallax Press website for the biography of Thich Nhat Hanh. Nhat Hanh was born Nguyen Xuan Bao. He entered a Zen monastery at sixteen and was eventually ordained a monk at twenty-three.

discourse. His writings are cited by almost every major Buddhist scholar who discusses the issue of overpopulation and are additionally cited by countless other writers from other traditions and disciplines.

It is helpful to begin with what Nhat Hanh calls “the cream of the Buddha’s teaching,”⁵⁸ the Four Noble Truths of Buddhism.⁵⁹ In all of his works, Nhat Hanh reimagines traditional Buddhist teachings and values. Traditionally, the first noble truth is that everything is suffering, the second is that the origin of suffering is desire, the third is that there exists an end to suffering, and the fourth is that there is a path that leads to that end to suffering.⁶⁰ According to Nhat Hanh, though, the first noble truth is suffering, the second is the “origin, roots, nature, creation, or arising of suffering,” the third is the “cessation of creating suffering by refraining from doing the things that make us suffer,” and the fourth is the “path that leads to refraining from doing the things that cause us to suffer,” which is known as the Noble Eightfold Path.⁶¹ This is one of the most important teachings in Buddhism because in it much of the subsequent thinking within the tradition is grounded. As Nhat Hanh says of the Four Noble Truths, “our suffering is holy...we embrace it and look deeply into it.”⁶² Many Buddhist thinkers, including Nhat Hanh, rely on the Four Noble Truths in their discussions of overpopulation and overconsumption, concluding that both are examples of suffering, represented by the first and second truths,

⁵⁸ Thich Nhat Hanh’s *The Heart of the Buddha’s Teaching: Transforming Suffering into Peace, Joy and Liberation: The Four Noble Truths, The Noble Eightfold Path, and Other Basic Buddhist Teachings* p. 9-11.

⁵⁹ The Dharma, or the Buddhist Doctrine is condensed in the Four Noble Truths as expounded by the historical Buddha--Siddhartha Gautama--the last Buddha to appear in the world-in his Discourse at Benares, his first public ministry. See also *The World of Buddhism: Buddhist Monks and Nuns in Society and Culture* ed. Heinz Bechert & Richard Gombrich p. 42-52.

⁶⁰ This classical translation is taken from *The World of Buddhism: Buddhist Monks and Nuns in Society and Culture* ed. Heinz Bechert & Richard Gombrich p. 47.

⁶¹ Thich Nhat Hanh’s *The Heart of the Buddha’s Teaching: Transforming Suffering into Peace, Joy and Liberation: The Four Noble Truths, The Noble Eightfold Path, and Other Basic Buddhist Teachings* p. 13.

⁶² *Ibid* p. 12.

but that within Buddhism there is also a way to end suffering, represented by the third and fourth truths.⁶³ Nhat Hanh, however, does not rely solely on the classical translation of these truths. In each case, he recasts the truth in his own way. One example of this is how Nhat Hanh explains that the eating habits of human beings have become a place for overconsumption. He writes,

much of our suffering comes from not eating mindfully....we need to look deeply at how we grow, gain, and consume our food, so we can eat in ways that preserve our collective well-being, minimize our suffering and the suffering of other species, and allow the earth to continue to be a source of life for all of us...while we eat, we destroy living beings and the environment.⁶⁴

He also explains that overconsumption can really occur in any of our six sense organs⁶⁵ and that this can stimulate and will only perpetuate our cravings for more which will only continue our suffering.⁶⁶ Nhat Hanh further elaborates this point in his translations of “the Five Wonderful Precepts,” five traditional lay teachings of moral restraint, as taught by the historical Buddha.⁶⁷

The five precepts are essentially guidelines for how one should live if one is aware of suffering. Each pertains to awareness of suffering caused by a certain set of actions. Several Buddhist monks and nuns have translated the five precepts in varying ways, but most tend to maintain the same basic ideas.⁶⁸ Nhat Hanh’s translation, like most others, has the same general theme, but his language and focus, like most of his

⁶³ Evident in numerous discussions of overpopulation by Buddhist scholars. See also Gross & Macy.

⁶⁴ Thich Nhat Hahn’s *The Heart of the Buddha’s Teaching: Transforming Suffering into Peace, Joy and Liberation: The Four Noble Truths, The Noble Eightfold Path, and Other Basic Buddhist Teachings* p. 32-33.

⁶⁵ The six sense organs Nhat Hanh is referring to are tongue, ears, nose, eyes, body, and mind.

⁶⁶ Thich Nhat Hahn’s *The Heart of the Buddha’s Teaching: Transforming Suffering into Peace, Joy and Liberation: The Four Noble Truths, The Noble Eightfold Path, and Other Basic Buddhist Teachings* p. 33.

⁶⁷ Refer to *The World of Buddhism: Buddhist Monks and Nuns in Society and Culture* ed. Heinz Bechert & Richard Gombrich p. 54.

⁶⁸ The five wonderful precepts are foundational in most streams of Buddhism and have been translated by numerous Buddhist figures throughout the history of the tradition.

work, is geared toward a Western audience and is designed to make the teachings more applicable in today's world. In Nhat Hanh's translations of the five precepts, it is clear how he is reimagining them in ways that are more applicable in the modern world. With respect to the issue of overpopulation, three of the precepts appear to be most appropriate for such a discourse. Specifically, the first, second, and fifth precepts are clearly linked to today's problems of overpopulation and overconsumption.

A classical translation of the first precept is simply "I vow to refrain from taking life."⁶⁹ Nhat Hanh, however, reimagines the first precept as,

Aware of the suffering caused by the destruction of life, I vow to cultivate compassion and learn ways to protect the lives of people, animals, plants and minerals. I am determined not to kill, not to let others kill, and not to condone any act of killing in the world, in my thinking, and in my way of life.⁷⁰

The main point of this precept is that life is valuable and should be protected. As Nhat Hanh comments, "it [life] is everywhere, inside us and all around us; it has so many forms" and that "we humans are made entirely of non-human elements, such as plants, minerals, earth, clouds, and sunshine."⁷¹ The heart of this precept stems from the realization that living creatures are being killed all over the world all of the time.⁷² From this realization, most people are naturally drawn "to cultivate compassion and use it as a source of energy for the protection of people, animals, plants, and even minerals."⁷³ Nhat Hanh claims that this practice of cultivating compassion and protecting life includes the ecosystem because the destruction of the environment is linked to human destruction. As

⁶⁹ This translation is taken from *The World of Buddhism: Buddhist Monks and Nuns in Society and Culture* ed. Heinz Bechert & Richard Gombrich p. 54.

⁷⁰ Discussed in Thich Nhat Hahn's *For a Future to Be Possible: Commentaries on the Five Wonderful Precepts* p. 42-56, 127-132.

⁷¹ Ibid p. 48.

⁷² Ibid p. 56.

⁷³ Ibid p. 128-129.

he puts it, “protecting human life is not possible without also protecting the lives of animals, plants, and minerals.”⁷⁴ He concludes that anyone who adheres to this precept should be a protector of the environment because it entails the practice of protecting all lives, which includes the lives of our fellow human beings as well as other animals, plants, and minerals.⁷⁵ Clearly, this precept warns against overpopulation, overconsumption and the resulting environmental degradation because none promotes the cultivation of compassion. The compassion of the first precept is not the only way people should respond to the world’s suffering. The second precept provides another way.

Traditionally, the second precept is translated as “I vow to refrain from stealing.”⁷⁶ Nhat Hanh, though, recasts the second precept as,

Aware of the suffering caused by exploitation, social injustice, stealing and oppression, I vow to cultivate loving kindness and learn ways to work for the well being of people, animals, plants and minerals. I vow to practice generosity by sharing my time, energy and material resources with those who are in real need. I am determined not to steal and not to possess anything that should belong to others. I will respect the property of others, but I will prevent others from profiting from human suffering or the suffering of other species on Earth.⁷⁷

This precept is in many ways an extension of the first. As the first emphasized compassion, this precept emphasizes loving kindness, both of which are two ethical precepts that come out of the historical Buddha’s teachings on the features of love.⁷⁸

Exploitation, social injustice, stealing, and oppression are all causes of much suffering all

⁷⁴ Thich Nhat Hahn’s *For a Future to Be Possible: Commentaries on the Five Wonderful Precepts* p. 130-132.

⁷⁵ Ibid p. 42, 132.

⁷⁶ This classical translation is taken from *The World of Buddhism: Buddhist Monks and Nuns in Society and Culture* ed. Heinz Bechert & Richard Gombrich p. 54.

⁷⁷ Thich Nhat Hahn’s *For a Future to Be Possible: Commentaries on the Five Wonderful Precepts* p. 56.

⁷⁸ Ibid p. 54-56.

over the planet.⁷⁹ The cultivation of loving kindness requires that “we make every effort to stop exploitation, social injustice, stealing, and oppression...to promote the well-being of people, animals, plants and minerals.”⁸⁰ This is done through individuals coming together as a community, looking deeply at the situation, exercising intelligence, and developing appropriate ways to address the most pressing problems in today’s society.⁸¹ Exploitation, social injustice, stealing, and oppression are all driving forces within overpopulation and overconsumption. This association is all the more apparent as we examine more of Nhat Hanh’s works. Of all the precepts, the fifth precept is the most specifically related to the issues of overpopulation and overconsumption.

The fifth precept is traditionally translated as “I vow to refrain from taking intoxicants.”⁸² Nhat Hahn reimagines the fifth precept as,

Aware of the suffering caused by unmindful consumption, I vow to cultivate good health, both physical and mental, for myself, my family, and my society by practicing mindful eating, drinking and consuming. I vow to ingest only items that preserve peace, well-being and joy in my body, in my consciousness, and in the collective body and consciousness of my family and society. I am determined not to use alcohol or any other intoxicant or to ingest foods or other items that contain toxins, such as certain TV programs, magazines, books, films and conversations. I am aware that to damage my body or my consciousness with these poisons is to betray my ancestors, my parents, my society and future generations. I will work to transform violence, fear, anger and confusion in myself and in society by practicing a diet for myself and for society. I understand that a proper diet is crucial for self-transformation and for the transformation of society.⁸³

⁷⁹ Thich Nhat Hahn’s *For a Future to Be Possible: Commentaries on the Five Wonderful Precepts* p. 128, 131.

⁸⁰ Ibid p. 42-56, 127-132.

⁸¹ Ibid p. 127-132.

⁸² This classical translation is taken from *The World of Buddhism: Buddhist Monks and Nuns in Society and Culture* ed. Heinz Bechert & Richard Gombrich p. 54.

⁸³ Ibid p. 131.

This precept centers on human consumption. It focuses on human health and healing of the self and of the world in which one lives. As Nhat Hanh sees it, today's world is wrought with individual selfishness because people assume that they can do whatever they want with their lives.⁸⁴ People are not aware of the effects of doing whatever they want to do. As Nhat Hanh puts it, "your body is not yours...it also belongs to society and to all the other living beings....if we are healthy and practice mindful consumption, everyone can benefit from it--not only everyone in the society of men and women, but everyone in the society of animals, plants, and minerals."⁸⁵ This is based on the idea that we are connected to and interrelated with everyone and everything. As Nhat Hanh points out, "the food we eat comes to us from nature, from living beings."⁸⁶ Thus, it is sensible to claim that every individual's actions are related to the entire world. He also points out that the Fifth Precept calls for mindful consumption not for individual benefit (though that will certainly be one result), but "also for our children and future generations."⁸⁷ In this sense, this precept (as do all the precepts) benefits the present as well as the future, just as concern for the problem of overpopulation also does. Nhat Hanh sums it up best, writing, "the practice of the Five Wonderful Precepts is the practice of mindfulness and compassion...for a future to be possible for our children and their children, we have to practice."⁸⁸ This is what illustrates the significance of the Five Wonderful Precepts in the modern day: all living creatures are interconnected and not just with each other during this time, but also with all future generations as well. The best explanation of Nhat

⁸⁴ Thich Nhat Hahn's *For a Future to Be Possible: Commentaries on the Five Wonderful Precepts* p. 127-130.

⁸⁵ Ibid p. 127-129.

⁸⁶ Ibid p. 129.

⁸⁷ Ibid p. 129-131.

⁸⁸ Ibid p. 128, 130, 132.

Hanh's understanding of the interrelation of all things is found in his concept of "interbeing," a term coined by him and referring to the web of connection among all things.⁸⁹

Nhat Hanh explains the notion of interbeing by illustrating the connection between a piece of paper and a cloud. As he explains, "without a cloud, there will be no rain; without rain, the trees cannot grow; and without trees, we cannot make paper."⁹⁰ He states that if one looks deeply enough into a piece of paper, one is able to see the sunshine used by the tree, the forest that the tree came from, the logger who cut the tree, the logger's lunch that day, even the logger's parents, and so on.⁹¹ He gives this connection a name, asserting that all of these things "inter-are," or "inter-be."⁹² According to Nhat Hanh, interbeing is evident in the fact that all things are because everything else is, which basically means that no thing exists without everything else.⁹³ As he explains, "without 'non-paper elements,' ...there will be no paper."⁹⁴ He also claims that to be is actually to inter-be because of the interrelation of all things; that interrelation carries a certain weight of responsibility. As he puts it, "everything is everything else, we inter-are, everyone is responsible for everything that happens in life."⁹⁵

For Nhat Hanh, this connection among all things may be ignored, but will not ever cease to be real. And, because of that, humankind has a responsibility to use the world's resources mindfully and to maintain the quality of its ecosystem. As he writes, "I

⁸⁹ Thich Nhat Hanh's discussion of this in *The Heart of Understanding: Commentaries on the Prajnaparamita Heart Sutra* p. 3-5.

⁹⁰ See Ibid p. 3-4.

⁹¹ Ibid p. 3.

⁹² Ibid p. 3.

⁹³ Ibid p. 4-5.

⁹⁴ Ibid p. 5.

⁹⁵ Ibid p. 51-52.

entrust myself to Earth, Earth entrusts herself to me.”⁹⁶ Additionally, of the interdependence and interrelation of humankind and the world, he also claims, “We classify other animals and living beings as nature, acting as if we ourselves are not part of it. Then we pose the question ‘How should we deal with Nature?’ We should deal with nature the way we should deal with ourselves. We should not harm ourselves; we should not harm nature...human beings and nature are inseparable.”⁹⁷ From his understanding of the Four Noble Truths, the Five Wonderful Precepts, and “inter-being,” Nhat Hanh draws some distinct conclusions about the modern world. Specifically, he writes,

Our world is becoming smaller and even more interdependent with the rapid growth in population....it is important to reassess the responsibilities of individuals in relation to each other and to the planet as a whole....we are finding that the world is becoming one community. We are being drawn together by the problems of overpopulation, dwindling natural resources, and an environmental crisis that threatens the very foundation of our existence on this planet.⁹⁸

Nhat Hanh sees overpopulation as one of the most pressing issues facing the world today. His approach and understanding of the problem, although from a distinctively Buddhist perspective, have an already established audience in the West, as evident by his wide-ranging readership. In Nhat Hanh, we find a teacher of Buddhist values who utilizes his traditional understandings in responding to a modern predicament. Furthermore, he also offers Buddhism as an ally to the world in the face of global problems. He is not the only Buddhist scholar to offer the tradition’s values and principles as aids to the rest of the world. There are countless other Buddhists who do

⁹⁶ Thich Nhat Hanh’s *The Heart of the Buddha’s Teaching: Transforming Suffering into Peace, Joy and Liberation: The Four Noble Truths, The Noble Eightfold Path, and Other Basic Buddhist Teachings*. p. 162.

⁹⁷ Thich Nhat Hanh’s “Please Call Me by My True Names.” *The Path of Compassion: Writings on Socially Engaged Buddhism*.

⁹⁸ Thich Nhat Hanh’s U.N. World Conference speech “For a Future to be Possible.”

much of the same. Two such figures are Joanna R. Macy and Rita M. Gross, both of whom are associated with the second major influence in the development of American socially engaged Buddhism, the Buddhist Peace Fellowship (BPF).

While the BPF is ecumenical and nonsectarian in spirit, like the groups associated with Nhat Hanh, the BPF also is distinctly more American as well. Arising out of a confluence of Buddhist meditative practices and 1960s-style social activism, the BPF was founded in 1978 by a small group of American-born Buddhists.⁹⁹ One of those founders was Joanna Macy, who also has a resounding voice in this conversation. Like Nhat Hanh, Macy emphasizes and utilizes Buddhist practices and values in engagement with social issues as well as in everyday life. Macy too focuses on the interconnectedness of the world, Buddhist notions of cause and effect, and modern environmental issues. Here, she echoes and expands upon Nhat Hanh's preceding perspectives. In addition, her perspectives also include a greater focus on making connections to the world of science and how particular Buddhist values relate to modern scientific theories. Thus, what we find in Macy's work is an elaborate terminology. Nevertheless, it is worthwhile to unpack her jargonistic language because in Macy we find a conduit for conversation between Buddhist scholars and scientists.

Macy, a scholar of Buddhism, deep ecology, and general systems theory,¹⁰⁰ is active in numerous environmental movements, including the BPF, the Gaia Foundation of Western Australia, and the Healing on Mother Earth project. In her voluminous writings, she develops a theoretical framework for individual and social ecological

⁹⁹ For a discussion of the Buddhist Peace Fellowship see Richard Seager's *Buddhism in America* p 206.

¹⁰⁰ General systems theory is a scientific theory based on contemporary physical and life sciences that presents a mutual or reciprocal view of causality. See also Joanna Macy's discussion the "General Systems Theory" chapter in *Mutual Causality in Buddhism and General Systems Theory: The Dharma of Natural Systems* p. 69-89.

change as well as a methodology for the implementation of her theories of change. Her work focuses on psychology, Buddhist values and teachings, contemporary science, and how all of these things are connected and what that means for the modern world.¹⁰¹

Macy's correlation of Buddhist thought and current scientific thinking is the most pertinent as it illustrates her own application of Buddhist principles in a modern context. In much of her work, Macy develops a dialogue between modern science, specifically systems theory, and Buddhist teachings and theories, particularly "the Doctrine of Dependent Origination," which accounts for the cycle of the causation of all the psycho-physical phenomena of life.¹⁰² Macy essentially reimagines this early Buddhist teaching in ways that are more consistent with theories of general systems. In addition, she sees such reimagining as being important to science, Buddhism, and the world. Of this, she says,

Systems concepts provide explanations and analogies which can illuminate Buddhist ideas that are less accessible from a linear causal point of view. Systems theory also offers a broad range of data showing the operation throughout the phenomenal universe of the causal principle the Buddha taught. For its part, Buddhism reveals the existential, religious, and ethical implications of the systems view of process. It allows us to see, in the arising and interaction of self-organizing systems, causes of suffering and of liberation from suffering.¹⁰³

She relates fundamental Buddhist notions of cause and effect, interconnectedness, and the nature of the world to contemporary scientific theories of causality and the process of reality by linking Buddhist values with scientific thought while underscoring useful insights from both.

¹⁰¹ See Joanna Macy's website <http://www.joannamacy.org>.

¹⁰² The Doctrine of Dependent Origination, *paticca samuppada*, is the norm governing the arising and passing away of all phenomena and is the primary theme of the Dharma—the traditional teachings of the historical Buddha. See also *The World of Buddhism: Buddhist Monks and Nuns in Society and Culture* ed. Heinz Bechert & Richard Gombrich p. 42, 45, 50, 54, 86; 29.

¹⁰³ Quotation from Joanna Macy's introduction in *Mutual Causality in Buddhism and General Systems Theory: The Dharma of Natural Systems* p. 1-2.

In order to illustrate better how Macy connects these two disciplines, it is logical to begin with Macy's understanding of the self. Using Nhat Hanh's terminology, Macy explains that the individual self and society co-arise or "inter-are."¹⁰⁴ She sees the world as becoming more receptive to broader concepts of existence, such as the notions of interconnectedness, theories on cause and effect, and ideas on being connected as one body with all of creation.¹⁰⁵ This shift is occurring, according to Macy, for two reasons: developments in current science and the "resurgence of nondualistic spiritualities," namely Buddhism.¹⁰⁶ With respect to modern science, she says, "the findings of twentieth-century science undermine the notion of a separate self distinct from the world."¹⁰⁷

Many contemporary scientists continue to search for supplementary ways to understand and to explain nature and the world's causal processes.¹⁰⁸ As modern physicists have delved deeper into patterns of causation on the subatomic and atomic levels, a different understanding of causality has emerged. Many of today's scientist are identifying the limitations of the classical view of linear causality, and therefore are beginning to give more credibility to views of causality which are mutual, interdependent and reciprocal in order to explain better the universe and its causal processes.¹⁰⁹ This is where scientists have turned to general systems theory and the systems theory of mutual

¹⁰⁴ One place where Joanna Macy quotes Thich Nhat Hanh is in *World As Lover, World As Self*. Here, she uses the term "inter-are" to describe self and society. Interestingly, Nhat Hanh wrote the foreword for this book.

¹⁰⁵ Refer to Joanna Macy's "The Greening of the Self" in eds, Allan Hunt Badiner *Dharma Gaia: A Harvest of Essays in Buddhism and Ecology* p. 53-60.

¹⁰⁶ Ibid. p. 55.

¹⁰⁷ Joanna Macy's "The Greening of the Self" in ed., Allan Hunt Badiner *Dharma Gaia: A Harvest of Essays in Buddhism and Ecology* p. 53-60.

¹⁰⁸ Ibid.

¹⁰⁹ Joanna Macy's discussion in *Mutual Causality in Buddhism and General Systems Theory: The Dharma of Natural Systems* p. 18, 91-96.

causality. It has prompted some observers to examine the understanding of mutual causal processes in Buddhist teachings because of the ideas of interdependence, interconnection and a mutually conditioned reality. Macy does just that with her representation of the Buddhist doctrine of causality, known as the doctrine of dependent origination or co-arising.¹¹⁰

Macy quotes the historical Buddha as explaining dependent origination as “that according to which coordinate phenomena are produced mutually.”¹¹¹ It is considered one of the most important parts of Buddhist scripture; and there are few other areas where a doctrine of causality has such a central role. According to Macy, in the doctrine of dependent origination, the universe is understood as a dynamic and interdependent process, in which all mental and physical factors exist in a “web of mutual causal interaction” with no absolute element.¹¹² Since there is no immutable essence, there is no basic principle from which dependent origination (or anything else for that matter) emanates. Dependent origination, instead, represents change and order or order within change.¹¹³ This idea is fundamental to Buddhism because it explains how there can be causal orderliness within the constant flux of the universe. Mutual causality in Buddhism is also a function of relationships. Because cause and effect cannot be individually identified, causality according to dependent origination is a function of multiple mutual factors. As Macy explains, “no effect arises without cause, yet no effect is predetermined, for its causes are multiple and mutually affecting.”¹¹⁴ From this, many

¹¹⁰ Ibid p. 18-19, 91-96.

¹¹¹ For further explanation see D.J. Kalupahana’s *Causality: The Central Philosophy of Buddhism* p. 54, 202.

¹¹² Explained in Joanna Macy’s *Mutual Causality in Buddhism and General Systems Theory: The Dharma of Natural Systems* p. 18-19.

¹¹³ Ibid p. 35.

¹¹⁴ Ibid p. 73.

connections can be made between the Buddhist vision of causality and systemic causality.

The understandings of causality within both Buddhism and systems theory are similar. In each, mutual causality is a basic component of a reality which is in a constant state of change or flux. Buddhists believe that everything is impermanent, meaning that nothing is absolute, infinite or ever-present in reality. From this, it follows for Buddhists that nature is ever-changing, in continuous flux. Similarly, systems theorists see a system in a continual state of inflowing and outflowing energy, i.e., flux.¹¹⁵

There is also a convergence in the theoretical explanations of the laws of cause and effect found in both systems theory and Buddhism. The idea of a first cause is completely illogical to a Buddhist thinker because neither cause nor effect can be categorically isolated. In the same way, systems theorists reject the traditional stimulus-response model of behavior because no one input can determine one output. This point is even affirmed by systems philosopher Ervin Laszlo, who claims “a stimulus does not cause a process...it only modifies processes in an autonomously active system.”¹¹⁶ This line of thinking is further evident in both Buddhism and systems theory because both emphasize a web of causation as opposed to an idea of root cause.

Yet another connection between Buddhism and systems theory highlighted by Macy, is in their notions of interdependence and interconnectedness throughout nature. In fact, without these ideas, mutual causality would be inexpressible in either body of thought. Unquestionably, interdependence and interconnection are fundamental to

¹¹⁵ Refer to Joanna Macy’s *Mutual Causality in Buddhism and General Systems Theory: The Dharma of Natural Systems* p. 18-19, 35, 73.

¹¹⁶ Ervin Laszlo’s description in *Introduction to Systems Philosophy* p. 251.

Buddhism as seen in preceding discussions of Nhat Hanh's understanding of the Buddhist tradition. To explain these Macy writes,

The Buddhist path, this liberation, this awakening puts one into the world with a livelier, more caring sense of social engagement. The sense of interconnectedness that can then arise, is...a vision of reality structured very much like the holographic view of the universe, so that each being is at each node of the net, each jewel reflects all the others, reflecting back and catching the reflection, just as systems theory sees that the part contains the whole....We are profoundly interconnected and therefore we are all able to recognize and act upon our deep, intricate, and intimate inter-existence with each other and all beings....This great systems view of the world helps us recognize our embeddedness in nature, overcomes our alienation from the rest of creation, and changes the way we can experience our self through an ever-widening process of identification.¹¹⁷

Macy's perspectives are important to this current discourse because her work offers a mutual hermeneutic between particular Buddhist teachings and contemporary science. From the perspective of this link, Macy connects both Buddhism and science in her exploration of the "nature and causal implications of the systemic co-arising of phenomena" as expressed in both disciplines.¹¹⁸ She even specifically states that she offers this reciprocal hermeneutic "in the hope that it will serve not only systems theory and Buddhist scholarship, but also our common welfare."¹¹⁹

For Macy, the realization of interconnectedness found in both the Buddhist tradition and general systems theory pushes individuals to act in ways that reflect such an understanding, particularly in more environmentally friendly ways. Of this, she writes,

the sense of an encompassing self, that deep identity with the wider reaches of life, is a motivation for action...a source of courage that helps us stand up to the powers that are still...working for the destruction of the

¹¹⁷ Joanna Macy's "The Greening of the Self" in Allan Hunt Badiner eds of *Dharma Gaia: A Harvest of Essays in Buddhism and Ecology* p. 55, 61-62.

¹¹⁸ Joanna Macy's *Mutual Causality in Buddhism and General Systems Theory: The Dharma of Natural Systems* p. 2. See also p. 2-12, 18-19, 69-89, 92-99.

¹¹⁹ *Ibid* p. xvii.

world. I am convinced that this expanded sense of self is the only basis for adequate and effective action.¹²⁰

She also speaks of how Buddhism specifically is a ground for the sort of changing in worldview that is necessary to alter the direction of the modern world. Of this she writes,

While all the worlds and planes of existence teem with consciousness, human mentality presents a distinctive feature: the capacity to choose, to change its karma. That is why a human life is considered so rare and priceless a privilege. And that is why Buddhist practice begins with meditation on the precious opportunity that a human existence provides—the opportunity to wake up for the sake of all beings. The Dharma vision of a co-arising world, alive with the consciousness, is a powerful inspiration for the healing of the Earth. It helps us to see two important things. It shows us our profound imbeddedness in the web of life, thus relieving us of our human arrogance and loneliness. And, at the same time, it pinpoints our distinctiveness as humans, the capacity for choice.¹²¹

This point further explains Macy's view that the understanding of interconnectedness causes human action, given the current state of the world.

The tension between the languages and worldviews of science and the world's religious traditions is often a source of undoing when those from within the two are faced with resolving the world's most pressing issues, like that of overpopulation. Whenever ideas from within one tradition or discipline can be related to ideas from another discipline, there will be grounds for dialogue. Here, Macy develops the groundwork for just such a dialogue between a religious tradition and the scientific community. Development of these sorts of dialogues is the foundation of inter-disciplinary dialogue. Macy's perspectives on this issue provide some of the underpinnings of a discourse between Buddhism and science. In this way, Macy presents Buddhist teachings and values as being consistent with similar scientific thought in the greater discourse on

¹²⁰ Joanna Macy's "The Greening of the Self" in Allan Hunt Badiner eds, *Dharma Gaia: A Harvest of Essays in Buddhism and Ecology* p. 61.

¹²¹ Joanna Macy's *Mutual Causality in Buddhism and General Systems Theory: The Dharma of Natural Systems* p. 195.

today's most significant global issues. Fortunately, the BPF provides us with yet another scholar who does much the same work in expanding the greater discussion on this topic. Like Nhat Hanh and Macy, Rita Gross applies her own understandings of Buddhist practices and values to modern society.

Speaking as both a modern Western academic and a practitioner, Gross offers perspectives possessing a unique dynamic. An American-born Jewish convert to Buddhism and academic scholar of religion and feminism, some of her professional affiliations include the BPF, the International Network of Engaged Buddhists, the Society for Buddhist-Christian Studies, and Sakyadhita: Daughters of the Buddha.¹²² Gross's personal Buddhist affiliation is "with Tibetan Vajrayana Buddhism as taught [by] the late Chogyam Trungpa."¹²³ She offers a unique and insightful perspective that reflects both her academic training in the history of and the comparative study of religions as well as her insider training in Vajrayana Buddhism. Calling herself a "Buddhist constructive theologian," she often attempts to interpret and explain the tradition in ways that will bring it to bear on issues facing the modern world. She directly applies certain fundamental Buddhist values and teachings to the planet's most pertinent ecological issues, such as overpopulation, fertility control, and resource use/consumption, among others. In doing so, she develops her own constructive theology as it relates to overpopulation.

¹²² Reference Rita Gross's personal website <http://www.ritagross.com>.

¹²³ Rita Gross's "Toward a Buddhist Environmental Ethic." *Journal of the American Academy of Religion* Volume 65, No. 2 Summer 1997 p. 334.

According to Gross, there are three basic features interacting in the issue of overpopulation: (1) the world/the environment, (2) population, and (3) consumption.¹²⁴ Of these three, only one is clearly fixed, namely, the environment. The other two features--population and consumption--represent the changeable factors in the equation. These factors need to be altered because “humans have the technologies to consume and reproduce in ways that, if not moderated, seem almost certain to destroy the ecological basis for human life.”¹²⁵ If true, then, this dilemma begs the question: what values and practices can change this? The answer for Gross is found in Buddhism. Specifically, there are two fundamental notions prevalent in Buddhism on which Gross heavily relies.

The first of these is one of the most basic Buddhist teachings, that of interdependence, which Gross considers “one of the most basic aspects of the Buddhist worldview...held in common by all forms of Buddhism.”¹²⁶ Just as it was with Nhat Hanh, Gross is reimagining particular traditional teachings and values. This emphasis on the interdependence of all aspects of life undergirds Gross’s discussion of population (more specifically reproduction) and consumption. She states that interdependence, as discovered by the historical Buddha, simply means that “nothing stands alone apart from the matrix of all else. Nothing is independent, and everything is interdependent with everything else.”¹²⁷ This notion of connectedness directs Buddhists’ understanding of the

¹²⁴ Refer to Rita Gross’s “Buddhist Resources for Issues of Population, Consumption, and the Environment” in Mary Evelyn Tucker & Duncan Ryuken Williams eds. of *Buddhism & Ecology: The Interconnection of Dharma and Deeds* p. 292.

¹²⁵ See similar discussion by Rita Gross in “Toward a Buddhist Environmental Ethic.” *Journal of the American Academy of Religion* Volume 65 No. 2 Summer 1997 p. 335-337.

¹²⁶ See similar discussion by Rita Gross in “Toward a Buddhist Environmental Ethic.” *Journal of the American Academy of Religion* Volume 65 No. 2 Summer 1997 p. 335-337.

¹²⁷ Ibid.

law of cause and effect, which governs the world.¹²⁸ It could be said that the teaching of interdependence in Buddhism, as presented by Gross, depicts humanity, along with all beings, as being interconnected in the web of interdependence that encompasses the very world in which we live. She further claims that such a worldview drives the individual to act accordingly, which may include changing one's consumption and/or reproduction habits.

For Gross, when a person realizes that one's actions have some bearing on the rest of the world, one's decisions and actions, especially those concerning reproduction and consumption, become relevant to the whole world and should reflect the realization of that understanding.¹²⁹ Interdependence "requires moderation in all activities, especially reproduction and consumption, because of their impact on the rest of the universe."¹³⁰ Furthermore, the requirement is necessary because contemporary society has made it so. Progress in the field of medicine, for example, has lowered the death rate, while increasing the mortality rate. She concludes that appropriate action is, in fact, a requirement. The appropriate action is limiting one's reproduction and consumption so as to be more harmonious with and not to harm the rest of the world, to which one is connected and on which one is dependent.

This emphasis on nonharming is also a basic value in the Buddhist tradition.¹³¹ Excessive reproduction and excessive consumption, then, are harmful to the web of life,

¹²⁸ Rita Gross's "Buddhist Resources for Issues of Population, Consumption, and the Environment" in Mary Evelyn Tucker and Duncan Ryuken Williams eds. *Buddhism & Ecology: The Interconnection of Dharma and Deeds* p. 295-296.

¹²⁹ Rita Gross's discussion in "Buddhist Resources for Issues of Population, Consumption, and the Environment" in Mary Evelyn Tucker & Duncan Ryuken Williams eds. of *Buddhism & Ecology: The Interconnection of Dharma and Deeds*. p. 292.

¹³⁰ Ibid p. 292, 298.

¹³¹ Rita Gross's *Soaring and Settling: Buddhist Perspectives on Contemporary Social Religious Issues* p. 81.

i.e., the environment and the other beings to which we are connected. As she states, “globally, communally, and individually, it is important to limit fertility, so that all children actually born can have adequate material and psychological care.”¹³² Something must be done to combat these excessive practices. That something, for Gross, is found in her understanding of another basic teaching in Buddhism, the Middle Way or the Middle Path.¹³³

The Middle Path of Buddhism promotes avoiding extremes in all aspects of life and encourages moderation. According to Gross, the historical Buddha taught that living moderately, avoiding both the extremes of over-indulgence and too much poverty, is how individuals become fully human.¹³⁴ She relates this core value in the Buddhist tradition to the issue of overpopulation, saying, “overpopulation does not just happen; it is the result of causes, one of which seems to be...not being able to walk the Middle Way between too much luxury and too much poverty.”¹³⁵ For Gross, this offers a rational response to the problem of overpopulation. As she puts it, “the concept of the Middle Way provides a cogent criticism and corrective for the rampant consumerism and overconsumption that are so linked with overpopulation.”¹³⁶ The Middle Path asks the

¹³² Rita Gross’s discussion in “Buddhist Resources for Issues of Population, Consumption, and the Environment” in Mary Evelyn Tucker & Duncan Ryuken Williams eds. of *Buddhism & Ecology: The Interconnection of Dharma and Deeds*. p. 298-300.

¹³³ After reaching enlightenment, the historical Buddha recognized that the way to enlightenment was avoidance of extremes by following a moderate a way of life. This way of living is known as the Middle Path. Following the Middle Path or Middle Way means avoiding both the extremes of indulgence and denial. The Fourth Noble Truth is that the Middle Path leads to the end of suffering.

¹³⁴ Thich Nhat Hanh’s *The Heart of the Buddha’s Teaching: Transforming Suffering into Peace, Joy and Liberation: The Four Noble Truths, The Noble Eightfold Path, and Other Basic Buddhist Teachings* p. 7-8, 101. See also *The World of Buddhism: Buddhist Monks and Nuns in Society and Culture* ed. Heinz Bechert & Richard Gombrich p. 45-47, 52-53, 86.

¹³⁵ Rita Gross’s discussion in “Buddhist Resources for Issues of Population, Consumption, and the Environment” in Mary Evelyn Tucker & Duncan Ryuken Williams eds. of *Buddhism & Ecology: The Interconnection of Dharma and Deeds*. p. 298.

¹³⁶ Ibid p. 298-299.

¹³⁶ Ibid p. 299-300.

individual to give up excessive pleasure seeking, but not to give up pleasure seeking completely because excessive self-denial is also not in accordance with this principle. The Buddhist value of interdependence, as explained by Gross, illustrates that humankind is connected to and must rely upon the environment and other beings.

Similarly, the Middle Way is not a foreign concept because most of the world's religious traditions criticize excessive behaviors, other than in commitment to or donations to the given tradition. Interdependence and the Middle Path are fundamental values of the Buddhist tradition, but they are also effective and important concepts in the greater ecological conversation. As Gross says, "more is not better, whether it is more people or more consumables."¹³⁷ The problems are human ones, while the answers may be cross-traditional religious ones. Just as Macy and Nhat Hanh are doing, Gross's engagement with modern issues illustrates resonance among disciplines and traditions.

All three of these Buddhists, Nhat Hanh, Macy, and Gross, expand the greater ecological discourse by applying Buddhist principles to contemporary society. Many of the values affirmed within the Buddhist tradition promote the creation of a better world for all forms of life through the cultivation of the individual in the course of a lifetime of deep reflection. As Thai Buddhist intellectual and social activist, Sulak Sivaraksa writes,

Buddhism is simply a way of mindfulness and peace. The presence of Buddhism does not mean having a lot of schools, hospitals, cultural institutions, and political parties run by Buddhists. Rather, the presence of Buddhism means that all these things are permeated and administered with humanism, love, tolerance, and enlightenment. These are characteristics that Buddhism attributes to opening up and developing the best aspects of human nature. This is the true spirit of Buddhism. All our efforts to preserve Buddhism or Buddhist society may fail, or they may succeed. The outcome is irrelevant. Our goal is to develop human beings with

¹³⁷ Rita Gross's "Toward a Buddhist Environmental Ethic." *Journal of the American Academy of Religion*, Volume 65, No. 2. Summer, 1997. p. 351.

enough inner strength and moral courage to begin restructuring the collective consciousness of society.¹³⁸

Here, Sivaraksa explains how and why these particular thinkers and their respective ideas are important to anyone other than Buddhists. These Buddhist responses to overpopulation and overconsumption from Nhat Hanh, Macy and Gross may at first seem unconventional, but interestingly they find allies in the works of two contemporary Christian scholars, Rosemary Radford Ruether and Sallie McFague. The following section explores these cases of resonance. Specifically, it is a distinctly different section from the previous because it is not an extended summarization of particular figures' works. Instead, the subsequent section is an examination of the natural alliances found within the works of Nhat Hanh, Macy, Gross, Ruether, and McFague.

¹³⁸ Sulak Sivaraksa's *Seeds of Peace: A Buddhist Vision for Renewing Society* p. 70.

4. RESONANCE IN THE MODERN WORLD: INTERCONNECTION OF BUDDHISTS & CHRISTIANS

The history of religions is full of professed links between spiritual blessing and human procreation. One of the best explanations of this implied link comes from William Lafluer's use of the term "fecundism," a pervasive linking of spiritual piety and the bountiful production of progeny apparent in many religious traditions and even throughout human history.¹³⁹ This linkage, however, is particularly problematic for any discussion of resonance between religious disciplines. Therefore, we first must acknowledge difficulties present in our current undertaking.

Today, many modern American Christian churches are hardly recognizing and addressing the magnitude of the world's ecological problems including overpopulation.¹⁴⁰ There is still little evidence to show that the majority of mainstream Christians are realizing the enormity of this problem.¹⁴¹ In a sense, it seems that the ecologically concerned responses from within the Christian tradition are not reaching its greater community of followers.¹⁴²

According to some commentators, of all the world's religious traditions, streams of American Christianity are arguably most responsible for the world's problems with excessive consumption and overpopulation.¹⁴³ Historian Lynn White provides one of the harshest criticisms of this fecundism, suggesting that it is this "orthodox Christian arrogance towards nature, following the imperative of the Genesis command" that is at

¹³⁹For an explanation of the development and definition of the term "fecundism" refer to William Lafluer's *Liquid Life: Abortion and Buddhism* p 87-88.

¹⁴⁰ See a similar discussion in Sean McDonagh's *The Greening of the Church* p 92.

¹⁴¹ Point taken from Sean McDonagh's *The Greening of the Church* p. 92.

¹⁴² Vladimir Tomek's article "Environmental Concerns: Christian Responses" from the Religious Tolerance Organization website.

¹⁴³ Refer to Catherine Keller's article "A Christian Response to the Population Apocalypse" in Harold Coward ed. *Population, Consumption and the Environment: Religious and Secular Responses* p. 109-122.

the core of much of today's ecological problems in large part because of the Christian conception of Mankind as being separate from and superior to the rest of creation.¹⁴⁴ The charge to increase in number has certainly been answered by many Christians. Nevertheless, there are numerous compelling influences desperately trying to transform streams of modern Christianity into a more self-aware and more environmentally aware tradition.

Eco-theology, for instance, has become a decisive force within today's Christianity because the world's ecology is clearly linked to the teachings of social justice professed by Jesus in the Gospels of the New Testament. Much of Christian theology can be imagined in such a way as to illustrate the intimate connection between Christianity's emphasis on social justice and population and ecology issues.¹⁴⁵ Nevertheless, these sorts of interpretations, or reinterpretations, have not found a home in many American Christian churches, which seem to be ignoring such environmentally concerned voices and remaining grounded in traditional Christian teachings.¹⁴⁶ In this respect, traditional Christian teachings concerning reproduction and fertility control are only just beginning to be reinterpreted in light of the issue of overpopulation. In addition, many contemporary Christian intellectuals are even coming to recognize that the developed Christian countries, like the United States, are the major culprits in this problem.¹⁴⁷

¹⁴⁴ This point is discussed in further depth in Lynn White's article "The Historical Roots of Our Ecological Crisis" in *Science* 155(#3767).

¹⁴⁵ Catherine Keller's argument in "A Christian Response to the Population Apocalypse" in Harold Coward ed. *Population, Consumption and the Environment: Religious and Secular Responses* p. 110-115.

¹⁴⁶ Point expressed by both Sean McDonagh and Lynn White.

¹⁴⁷ For an expanded discussion of this see Lynn White's article "The Historical Roots of Our Ecological Crisis" in *Science* 155(#3767).

Today, a number of Christian eco-theologians align their scholarship with the teachings of Jesus in the New Testament who emphasized helping those in need as well as the teachings from the Hebrew prophets of the Old Testament who held that mankind and nature were to live in justice with one another.¹⁴⁸ This has led some observers to note that such contemporary Christian scholars are reimagining themselves as an interdependent part of creation who have the responsibility not to increase the quantity of life, but to advance its quality by addressing their neighbors' needs, which can be adversely affected by excessive reproduction and consumption.

One stream of modern Christian thought is "eco-feminist Christian theology," which further develops Christianity's ecological enlightenment. In fact, some Christian eco-feminist writers admit that Christianity has historical inadequacies with respect to the environment, but still express ways in which Christianity can change this lack of environmental concern.¹⁴⁹ Here, we can take a look at two such thinkers and then see how their ideas resonate with the thinking of Nhat Hanh, Macy, and Gross.

One of the primary focuses in Christian eco-feminist theologian Rosemary Radford Ruether's works is the modern ecological crisis.¹⁵⁰ In *To Change the World*, she claims that there is a correlation between humanity's environmental degradation and social domination, seeking an "ecological-libertarian" worldview.¹⁵¹ Furthermore, she asserts that the earth cannot sustain infinite expansion nor can humanity accept existing social inequalities. To this she responds, "We need a fundamentally different model of human hope and change. I suggest conversion rather than either infinite growth or a final

¹⁴⁸ Lynn White's article "The Historical Roots of Our Ecological Crisis" in *Science* 155(#3767).

¹⁴⁹ Rosemary Radford Ruether's *Gaia and God: An Ecofeminist Theology of Earth Healing* p. 98.

¹⁵⁰ For complete biographical information see the Boston Collaborative Encyclopedia of Western Theology website.

¹⁵¹ Rosemary Radford Ruether's *To Change the World: Christology & Cultural Criticism* p. 68.

revolution."¹⁵² In calling for change, Ruether also seeks a cooperative effort, claiming "The return to harmony in the covenant of creation is not a matter of cyclical return to the same, for each new achievement of workable balances is different, based on new environments and technologies."¹⁵³ Thus Ruether's theology allows for authentic innovative growth without the modern advent of unlimited expansion. She also claims that Christianity has parts that can, with certain insights, challenge and change traditional teachings that may be less applicable to modern issues.¹⁵⁴ She argues for a worldly community that respects both its human and nonhuman aspects as being all parts of a community that adds to a common good. The outcome is a comprehensive view of Christianity which respects human uniqueness, but prohibits human domination.¹⁵⁵

Echoing Ruether's sentiments, Christian feminist theologian Sallie McFague reinterprets Christian theology in light of the discussion of humans and nature.¹⁵⁶ According to McFague, traditional models, systemic metaphors that carry on over time, are open to critique and change. One example of this for McFague is Christianity's principal model for the relationship of God and the world: the Christian model of God as father of humanity. McFague examines this model of God, points out its weaknesses, and offers some alternative models, which address modern concerns. These alternative models include God as mother, God as lover, God as friend, and the world as the body of God.¹⁵⁷ After discussing these respective models in depth, McFague preferred the holistic model of the world as the body of God. For her, the organic model best describes

¹⁵² Rosemary Radford Ruether's *To Change the World: Christology & Cultural Criticism*. p. 68.

¹⁵³ Ibid p. 69.

¹⁵⁴ Rosemary Radford Ruether's *Gaia and God: An Ecofeminist Theology of Earth Healing* p. 92.

¹⁵⁵ Rosemary Radford Ruether's *Gaia and God: An Ecofeminist Theology of Earth Healing* p. 98.

¹⁵⁶ Sallie McFague's *Models of God: Theology for an Ecological Nuclear Age* p. 3-21, 59-69, 101-109, 130-137.

¹⁵⁷ Sallie McFague's *Models of God: Theology for an Ecological Nuclear Age* p. 3-21, 59-69, 101-109.

the relationship between God and the world because it helps to resolve the tension between the transcendence and the immanence of God.¹⁵⁸ As McFague writes, "Certainly our time of desecration of the natural environment desperately needs immanental, natural metaphors which will help to address the imbalance that centuries of the Judeo-Christian emphasis on humanity's 'dominion over the earth' have brought about."¹⁵⁹ She argues for Christian theology to include in its ethics of justice an "ecological model" that would embrace "the competing rights of other levels of life."¹⁶⁰ She writes "if one were to do Christian theology from the holistic perspective, it is evident that some significant changes from traditional models and concepts would be necessary."¹⁶¹

Eco-feminist Christian theologians Ruether and McFague both reimagine their own Christian theology to include notions of interdependence and reshape their worldviews in light of the plight of the world in which they live. These responses resonate with similar values found in Nhat Hahn, Gross, and Macy's understandings of interdependence from within the Buddhist tradition. McFague's holism echoes that of both Nhat Hahn and Macy's; and Ruether's call for the respect for both the human and nonhuman parts of the world is maintained by both Nhat Hahn's explanation of the Five Wonderful Precepts and Gross's discussion of the Middle Path. These two briefly examined examples of resonance are admittedly simplistic, but they do illustrate the sorts of links between disciplines and traditions that promote interreligious and

¹⁵⁸ Sallie McFague's *Models of God: Theology for an Ecological Nuclear Age* p. 59-69, 101-109, 130-137.

¹⁵⁹ Ibid p. 104.

¹⁶⁰ Ibid p. 107.

¹⁶¹ For another explanation see Sallie McFague's *Models of God: Theology for an Ecological Nuclear Age* p. 131.

interdisciplinary dialogues as well as the types of resonance that can be found in many cases of interreligious discourse.

5. RELIGIONS & ECOLOGY: CLOSING THOUGHTS

Desertification, the rise of sea levels, and rapid population growth all place tremendous strain on the Earth's sustainability. If this trend continues, then overpopulation will soon become one of the chief dangers to the modern world and to society as we know it. Excessive consumer numbers within the human population are continually increasing at a rapid rate.¹⁶² There is now a pressing need for human beings to balance better their consumption and reproduction habits with the planet's ability to restore its natural resources and to absorb its inhabitants' wastes. It is essential that humanity responds to global issues like excessive population growth, overconsumption of the Earth's resources, and degradation of our own interdependent ecosystem. Technologies exist that can lighten human impact on the environment, but technology does not comprehensively address the modern environmental situation.

Science, religion, and all other disciplines are necessary but not sufficient for more inclusive responses to the globe's current environmental problems. Here a multi-disciplinary approach can be beneficial. Religious traditions presently are in dialogue with other traditions as well as other disciplines about modern ecological concerns. In our exploration of resonance between certain Buddhist and Christian responses to overpopulation, we witness a part of this larger network of dialogue centering on environmental concerns.

This emerging discourse upholds resources from within the world's religious traditions that foster mutually positive human-Earth relationships as well as facilitates dialogue with those in other disciplines. Multi-religious and multi-disciplinary approaches to environmental concerns affirm common values from within the world's

¹⁶² Refer to the October 24, 2006 issue of the Living Planet Report Online.

religions. Chief among these are veneration of the planet and its biodiversity species, awareness of the inherent worth of nature, valuing of human-Earth relationships, duty to provide a sustainable life for future generations, self-discipline in the consumption of resources, redistribution of goods and services more equitably, promotion of the world's aesthetic qualities, and development of individual wellbeing through care of the individual self by caring for the environment.¹⁶³

The world's religions provide both spiritual insights and culturally specific but internationally inclusive responses to modern environmental concerns. Their contributions are one component of a greater web of a diversity of disciplines. Long-term cultural changes can occur within such critical intersections of thought provided by multi-religious and multi-disciplinary dialogue. Multi-disciplinary approaches and the development of comprehensive ecological practices and principles will be essential to finding lasting environmental answers. The world's religions are now adding to these endeavors.

¹⁶³ For greater explanation of a "multidisciplinary approach" and the discourse of religions and ecology see Mary Evelyn Tucker's *Worldly Wonder: Religions Enter Their Ecological Phase*. p. 33-35.

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